UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

Intellectual Ventures I, LLC; Intellectual Ventures II, LLC, Plaintiffs, v. Lenovo Group Ltd., Lenovo (United States) Inc., LenovoEMC Products USA, LLC, and EMC Corp., Defendants.	Civil Action No. 16-10860-PBS
Intellectual Ventures I, LLC; Intellectual Ventures II, LLC, Plaintiffs, v. NetApp, Inc., Defendant.	Civil Action No. 16-10868-PBS

MEMORANDUM AND ORDER ON CLAIM CONSTRUCTION

March 13, 2019

Saris, C.J.

INTRODUCTION

Intellectual Ventures ("IV") accuses several technology companies[1] of infringing U.S. Patent No. 6,516,442 ("the '442

[1] Lenovo Group Ltd., Lenovo (United States) Inc., LenovoEMC Products USA, LLC, EMC Corp., and NetApp, Inc.

patent") entitled "Channel interface and protocols for cache coherency in a scalable symmetric multiprocessor system."

IV asserts claims 2, 8, 11, 25, and 31 against Defendants. Independent claim 1 states:

> **1.** A shared-memory multi-processor system comprising:
>
> a switch fabric configured to switch packets containing data;
>
> a plurality of channels configured to transfer the packets;
>
> a plurality of switch interfaces configured to exchange the packets with the switch fabric, exchange the packets over the channels, and perform error correction of the data in the packets exchanged over the channels;
>
> a plurality of microprocessor interfaces configured to exchange the data with a plurality of microprocessors, exchange the packets with the switch interfaces over the channels, and perform error correction of the data in the packets exchanged over the channels; and
>
> a memory interface configured to exchange the data with a memory device, exchange the packets with the switch interfaces over the channels, and perform error correction of the data in the packets exchanged over the channels.

Dependent claim 2 states:

> **2.** The shared-memory multi-processor system of claim 1 wherein the interfaces are configured to add error correction codes to the packets being transferred over the channels to check the error correction codes in the packets being received over the channels and to transfer a retry request if one of the packets being received has an error.

'442 patent, claims 1 and 2 (emphasis added). The disputed terms are underlined. The parties dispute the claim

construction of three terms: “packet,” “error correction,” and “error correction code.” The Court held a non-evidentiary Markman hearing on November 16, 2018.

BACKGROUND

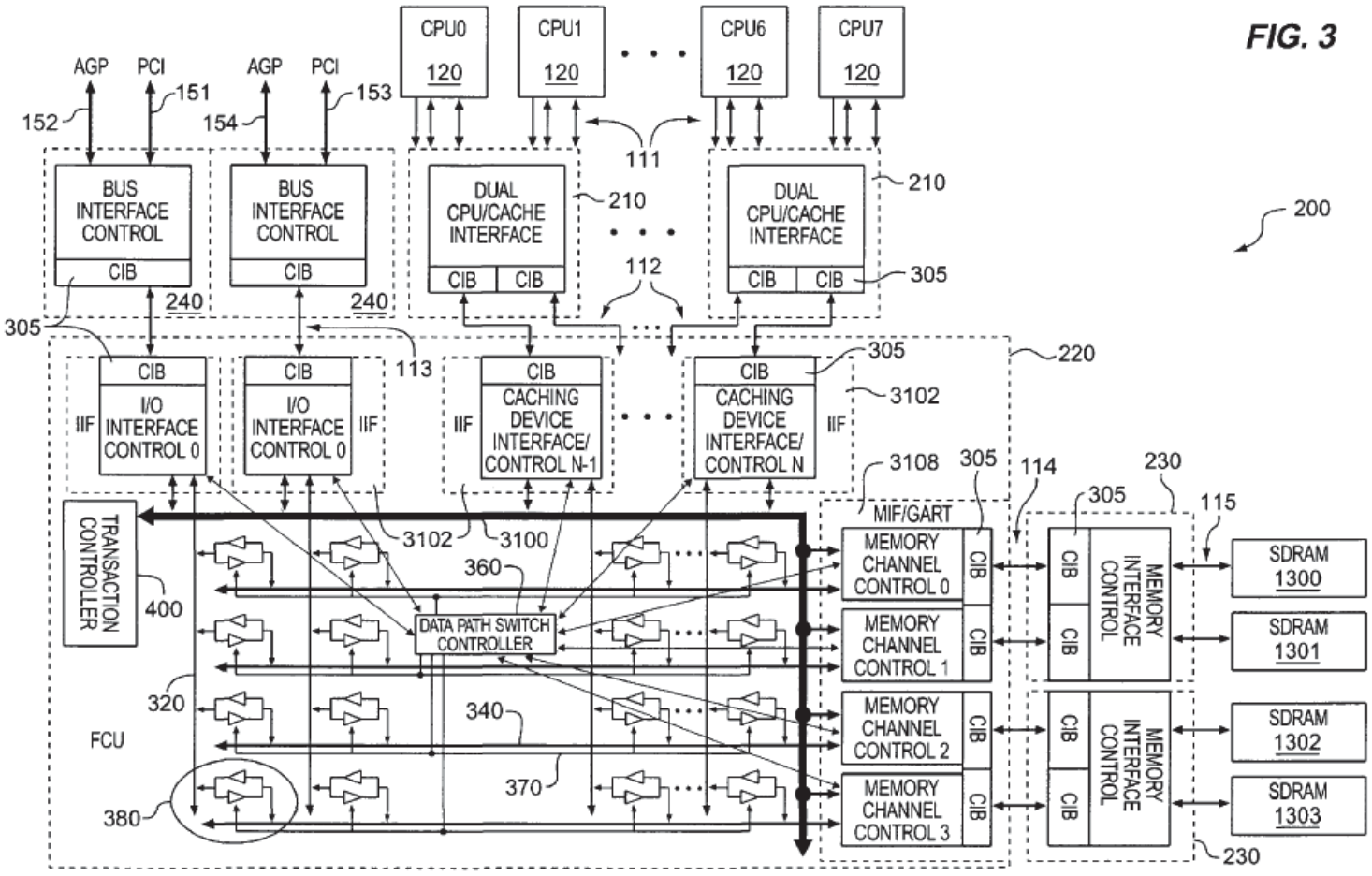
A. The ‘442 patent

The ‘442 patent relates to a type of computer architecture known as a symmetric multiprocessor system or “shared-memory multi-processor system” (“SMP”). ‘442 patent at col. 1, ll. 17-18, 65-66. In a conventional SMP, two or more processors are connected to a shared memory device via one shared “bus” – or communication channel. See id. at col. 1, ll. 18-21. A processor retrieves data from memory to perform computations, and then sends information back to memory. These transactions between the processors and the memory take place one at a time over the shared bus. See id. at col. 1, ll. 30–32. The scalability of a conventional SMP is limited because “[a]s more processors are added [to the SMP], eventually system performance is limited by the saturation [i.e., bottlenecking] of the shared system bus.” Id. at col. 1, ll. 37–39.

The ‘442 patent solves this problem by using a “switched fabric (switch matrix) for data transfers that provides multiple concurrent buses that enable greatly increased bandwidth between processors and shared memory.” Id. at col. 1, ll. 50–53. Parties have agreed that the term “switch fabric” should be construed to

mean “a data switching circuitry having a matrix or similar arrangement of interconnections.” Docket No. 195 at 6 n.1; Docket No. 196 at 9.

Figure 3 of the ‘442 patent, reproduced below, shows the basic components of the claimed system using a Flow Control Unit (FCU 220). The system includes multiple processors (CPU 120), shared memory devices (SDRAM 1300-1303), and a switch fabric composed of multiple vertical and horizontal buses (320 and 340) and switches (380). Each component has a corresponding “interface.” In the ‘442 patent’s system, processors (120) and



memory devices (1300–1303) exchange data with, and communicate through, processor interfaces (DCIU 210) and memory interfaces (MCU 230). See ‘442 patent at col. 2, ll. 60–67.

A “channel” is “a general-purpose, high-speed, point-to-point, full-duplex, bi-directional interconnect bus.” ‘Id. at col. 6, ll. 40-43. A “packet” is sent between Channel Interface Block (CIB) transceivers via a channel. Id. at col. 6, l. 65 – col. 7, l. 2. “A ‘packet’ is the basic unit of transport over the channel.” Id. at col. 6, l. 53. In a preferred embodiment, a “packet is a single 80-bit frame (information unit) exchanged between CIBs” over a channel. Id. at col. 6, ll. 54-60. It includes data, control information, and error correction code (ECC).[2] Id. at col. 6, ll. 54-63.

B. Prior Litigation on the ‘442 Patent (“HCC Litigation”)

In July 2015, IV sued EMC customer HCC Insurance Holdings in the Eastern District of Texas, asserting the ‘442 patent along with three other patents. See Docket No. 179-1, Compl., *Intellectual Ventures I LLC v. HCC Insurance Holdings, Inc.*, No. 6:15-cv-660 (E.D. Tex.). IV submitted an opening claim construction brief, arguing that all disputed terms should be given their “plain and ordinary meaning.” See Docket No. 195-7 (“HCC Litigation Opening Brief”) at 13-23. The magistrate judge

[2] The ‘442 patent’s claims refer to the use of “ECC.” Both parties agree that ECC means “error correction code.”

held a Markman hearing and produced a report and recommendation construing disputed terms, including “packet,” “error correction,” and “error correction code.” The magistrate judge construed “packet” to mean “a basic unit of transport over a channel that includes data, control information, and error correction code”; “error correction” to mean “reconstruction of erroneous data”; and “error correction code” to mean a “code that can be used to correct erroneous data.” Docket No. 195-4 (“HCC Litigation R&R”) at 8-14. The case settled.

C. PTAB IPR Review of the ‘442 Patent

On May 27, 2016, EMC petitioned the PTAB for inter partes review (“IPR”) of the ‘442 patent, challenging the claims that had previously been asserted by IV against EMC’s customer in the HCC Litigation (claims 1, 2, 5, 9, 10, 12, 24, 25, 28, 32, 33, and 34). See Docket No. 137-7 (“IPR Petition”). EMC based its petition, in part, on U.S. Patent No. 5,490,250 (“Reschke”), a patent that was not disclosed to the Patent Office during the original prosecution of the ‘442 patent. See IPR Petition at 5-8.

During the IPR proceedings, IV asserted that the term “packet” should be construed to mean “a formatted transmission unit including at least data and control information.” See Docket No. 179-4 (“FWD”) at 13. EMC asserted that the term should be construed to mean “a basic unit of transport over a

channel" as defined in the '442 patent. See id. On November 24, 2016, the PTAB entered a Final Written Decision ("FWD") construing terms in the '442 patent – including "packet" – and finding that EMC had shown by a preponderance of the evidence that claims 1, 12, 24, and 34 were unpatentable as obvious under 35 U.S.C. § 103(a) over Reschke; and claims 5, 9, 10, 28, 32, and 33 were unpatentable as obvious under 35 U.S.C. § 103(a) over the combination of Reschke and another prior art patent, Nishtala. See id. at 66. As part of its decision, the PTAB construed "packet" to mean "a basic unit of transport over a channel." Id. at 28. The PTAB did not construe "error correction" or "error correction code." The PTAB agreed with EMC's assertion that "using ECC bits to correct single-bit errors in data transferred over a channel" was an "error correction technique" known at the time of the '442 patent. Id. at 53-54.

DISCUSSION

A. Legal Standard

Claim construction is an issue of law for the court. Markman v. Westview Instruments, 517 U.S. 370, 372 (1996). Claim terms are generally given their "ordinary and customary meaning," i.e., "the meaning that the term would have to a person of ordinary skill in the art in question" at the time of the invention. Phillips v. AWH Corp., 415 F.3d 1303, 1312-13

(Fed. Cir. 2005) (en banc). In determining how a person of ordinary skill in the art would have understood the claim terms, the court looks to "the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art." Id. at 1314 (quoting Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc., 381 F.3d 1111, 1116 (Fed. Cir. 2004)).

B. Agreed Constructions

The parties have agreed that a "switch fabric" means "a data switching circuitry having a matrix or similar arrangement of interconnections" and they have agreed that a "channel" is "a general-purpose, high-speed, point-to-point, full-duplex, bi-directional interconnect bus." Docket No. 195 at 6 n.1; Docket No. 196 at 9. The Court adopts these proposed constructions.

C. "packet" (claims 2, 8, 11, 25, 31)

IV's Proposed Construction	Def.'s Proposed Construction
a formatted transmission unit including at least data and control information	a basic unit of transport over a channel

Defendants argue "packet" should be construed to mean "a basic unit of transport over a channel." To support their proposed construction, they rely on the section of the specification titled "Channel Overview and Terminology," which states: "A 'packet' is the basic unit of transport of the

Channel.” ‘442 patent, col. 6, ll. 53 (the “packet sentence”). In their view, the inventor was his own lexicographer and “[w]hen a patentee explicitly defines a claim term in the patent specification, the patentee's definition controls.” Martek Biosciences Corp. v. Nutrinova, Inc., 579 F.3d 1363, 1380 (Fed. Cir. 2009).

“To act as [his] own lexicographer, a patentee must ‘clearly set forth a definition of the disputed claim term,’ and ‘clearly express an intent to define the term.’” GE Lighting Sols., LLC v. AgiLight, Inc., 750 F.3d 1304, 1309 (Fed. Cir. 2014) (citation omitted). In this case the patentee was acting as his own lexicographer. The patentee defined the term “packet” by placing it in quotation marks. A term set off by quotation marks is “often a strong indication that what follows is a definition.” Sinorgchem Co., Shandong v. Int’l Trade Comm’n, 511 F.3d 1132, 1136 (Fed. Cir. 2007). Additionally, the term “packet” is followed by “is” further indicating that what follows is a definition. Id. (“[T]he word ‘is’ . . . may ‘signify that a patentee is serving as its own lexicographer.’”) (citation omitted). Moreover, the definition appears in the specification under the heading “Channel Overview and Terminology” (emphasis added), indicating the inventor’s intent to define the term.

The PTAB agreed with this approach during its own analysis of the '442 patent. In the FWD, the PTAB concluded,

> the "packet sentence" of the '442 patent provides an express definition for the term "packet" because the form and the substance of the sentence, the context in which the sentence appears, and the related disclosures all indicate that the patentee intended to define the term in the '442 patent, and defined it "clearly, deliberately, and precisely" in the "packet sentence."

FWD at 17-18 (quoting Sinorgchem, 511 F.3d at 1136). Thus, consistent with the '442 patent, the PTAB construed the term "packet" to mean "a basic unit of transport over a channel." Id. at 28.

Additionally, the packet sentence is followed by a single, "preferred embodiment":

> In a preferred embodiment, conceptually a packet is a single 80-bit frame (information unit) exchanged between CIBs, the frame including: 64 bits of data exchanged core-to-core; 2 bits of control information exchanged core-to-core; 6 bits of control information exchanged CIB-to-CIB; and 8 bits of ECC exchanged CIB-to-CIB.

'442 patent, col. 6, ll. 54-60. In the preferred embodiment a "packet" is a "frame" or "information unit" which includes data, control information, and ECC bits. In its proposed construction, IV argues that a packet must include at least data and control information. But this construction would selectively include parts of a single preferred embodiment (data and control information) and not another component (ECC bits). As the Federal Circuit has repeatedly explained,

> [P]articular embodiments appearing in the written description will not be used to limit claim language that has broader effect. And, even where a patent describes only a single embodiment, claims will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using words or expressions of manifest exclusion or restriction.

Innova/Pure Water, 381 F.3d at 1117 (cleaned up). Here, the language of the patent undermines IV's argument that a packet must necessarily include data and control information, when the patentee has expressly defined the disputed term. See Martek Biosciences, 579 F.3d at 1380–81 (holding that where the patent specification explicitly defined the term "animal," the definition controlled and would not be limited based on preferred embodiments to non-human animals).

IV argues that this Court should not construe "packet" as the PTAB did because the PTAB uses a "broadest reasonable construction" standard. See Cuozzo Speed Techs., LLC v. Lee, 136 S. Ct. 2131, 2144 (2016). However, the PTAB and district courts must both construe a term consistent with a definition found in the specification when the patentee is acting as his own lexicographer. See Singorchem, 511 F.3d at 1138 ("When the specification explains and defines a term used in the claims, without ambiguity or incompleteness, there is no need to search further for the meaning of the term." (quoting Multiform

Desiccants, Inc. v. Medzam, Ltd., 133 F.3d 1473, 1478 (Fed. Cir. 1998))).

IV's proposed construction of "a formatted transmission unit including at least data and control information" is premised on IV's assertion that the '442 patent should be understood in the context of a "computerized packet switching network." Docket No. 196 at 10. Relying on technical dictionary definitions and its own expert, IV argues that a person of ordinary skill in the art at the time would know that in "packet switching" networks, packets must at least include data and control information for the system to function. See id. at 13. IV cites to a Technopedia definition which describes "packet switching" as,

> [A] digital network transmission process in which data is broken down into suitably-sized pieces or blocks for fast and efficient transfer via different network devices. When a computer attempts to send a file to another computer, the file is broken down into packets so that it can be sent across the network in the most efficient way. These packets are then routed by network devices to the destination.

Docket No. 196-6 at 2. However, extrinsic evidence cannot be used to "contradict claim meaning that is unambiguous in light of the intrinsic evidence." Phillips, 415 F.3d at 1324. The PTAB reasonably rejected this argument finding that the "switch fabric disclosed in the '442 patent does not connect computers over a computer network, but rather connects processors to

memories within a computer." FWD at 24 (citing '442 patent at col. 2, l. 43 – col. 3, l. 35, Figs. 2, 3). Therefore, a "packet" is construed to mean "a basic unit of transport over a channel."

D. "error correction" (claim 1)

IV's Proposed Construction	Def.'s Proposed Construction
correcting errors in data	reconstruction of erroneous data

Defendants argue that "error correction" means the "reconstruction of erroneous data," or must include at least "the reconstruction" of erroneous data. Docket No. 214 ("Markman Transcript") at 58:19 – 59:2. IV argues that "error correction" must not exclude the possibility of correcting errors using a retry request as described in claims 2 and 25 of the patent.

Claim 1 recites a system wherein the switch interfaces, microprocessor interfaces, and memory interfaces are configured to "perform error correction of the data in the packets exchanged over the channels." '442 patent, claim 1. Claim 2 recites a system wherein the interfaces are configured to add error correction codes to packets, check error correction codes in packets, and "transfer a retry request if one of the packets being received has an error." '442 patent, claim 2.

A bit of background information about bits may be helpful to understand this dispute. See Teva Pharm. USA, Inc. v. Sandoz, Inc., 135 S. Ct. 831, 841 (2015) (noting that sometimes the

"district court will need to look beyond the patent's intrinsic evidence and to consult extrinsic evidence in order to understand, for example, the background science"). According to Defendants' expert, Douglas W. Clark, digital information is represented, stored, and transmitted as collections of "bits" (a bit is represented as either a 1 or a 0). See Docket No. 195-10 (Decl. of Douglas W. Clark) ¶ 76. An error in the storage or transmission of a bit causes it to mistakenly change from 0 to 1, or from 1 to 0. Id. If a packet with data contains one bit with an error, then it is called a "single-bit error." Id. Multiple bit errors within a single packet are also possible. Id. Computer scientists are concerned with detecting and correcting bit errors in a system "since the impact of even one wrong bit on a computation can be enormous." Id. Dr. Clark explains that ECCs detect errors and in certain cases can also correct those errors – reconstructing the data back to the original, correct 1 or 0. The ECCs in the '442 patent can correct smaller errors, i.e., single bit errors; however, they are incapable of correcting larger errors, i.e., two bit errors. Instead, the ECCs detect these larger errors and help the recipient request that the sender "retry" sending the information. See id. ¶¶ 75-90; see also Docket No. 196-10 (Decl. of Richard D. Wesel) ¶ 27 (describing how bits can be set in

packet control information to signal that a transmission should be retried because of an error).

Defendants argue that the ordinary meaning of "performing error correction of the data in the packets," means correcting erroneous data in a packet via the reconstruction of errors – for example, changing an erroneous 1 back to a 0. Defendants point out that their definition is consistent with IV's own position in the HCC Litigation that "the plain and ordinary meaning of a "error correction" is "reconstruction of erroneous data." See HCC Litigation Opening Brief at 9.[3]

However, IV argues that if "error correction" only included reconstruction and not retry, then the definition would exclude a type of "error correction" via retry recited in dependent claims 2 and 25. Claims 2 and 25 recite a technique of "error correction" using a retry protocol. See, e.g., '442 patent, claim 25 at col. 38, ll. 39-47 ("The method of claim 24 wherein performing error correction of the data in the packets exchanged over the channels comprises: adding error correction codes to the packets being transferred over the channels; checking the error correction codes in the packets being received over the

[3] The magistrate judge ultimately adopted IV's position holding that error correction means "reconstruction of erroneous data" but rejected HCC's position that error correction had to be performed with "error correction codes." HCC Litigation R&R at 8.

channels; and transferring a retry request if one of the packets being received has an error.").

Because the patent does not define the term "error correction," to resolve this dispute the Court turns first to the specification, which is the "single best guide to the meaning of a disputed term," Phillips, 415 F.3d at 1315 (quoting Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996)). In the '442 patent, the specification distinguishes between "error correction" and "retry" protocols. The specification states: "The core logic assumes that the CIB does its own error detection and retry so that any 'uncorrectable' errors (those that fail any error correction and/or retry) can be deemed to be system fatal." '442 patent at col. 15, ll. 42-45 (emphasis added). The "and/or" indicates that "error correction" is different from "retry." Additionally, the specification refers to "single bit error correction" as a distinct process from the "transport retry protocol," confirming that single bit error correction of data in the packets is different from the retry procedure. See '442 patent at col. 16, ll. 52-55; see also '442 patent at col. 19, 11. 3-5 (describing how the CIB [interface] logic must "generate ECC, detect errors, and invoke a retry procedure for error recovery").

The doctrine of claim differentiation also helps resolve this dispute. Under the doctrine of claim differentiation,

"dependent claims are presumed to be of narrower scope than the independent claims from which they depend." AK Steel Corp. v. Sollac and Ugine, 344 F.3d 1234, 1242 (Fed. Cir. 2003). Here, the dependent claims are narrower in scope because claim 2 requires a system configured to add error correction codes to the packet to transfer a retry request "if one of the packets being received has an error" and claim 25 requires a method comprising adding error correction codes, checking error correction codes, and "transferring a retry request." The presence of a dependent claim that adds a particular limitation (i.e., retry protocol) raises a presumption that the limitation in question is not found in the independent claim. Phillips, 415 F.3d at 1315; see also Liebel-Flarsheim Co. v. Medrad, Inc., 358 F.3d 898, 910 (Fed. Cir. 2004) ("The juxtaposition of independent claims lacking any reference to a pressure jacket with dependent claims that add a pressure jacket limitation provides strong support for [plaintiff's] argument that the independent claims were not intended to require the presence of a pressure jacket."). Thus, the "error correction" in claim 1 is different from correcting errors via a retry protocol.

IV argues that reading "error correction" to exclude the possibility of a retry request would unnecessarily limit the term and read out a preferred method of error correction. See SanDisk Corp. v. Memorex Prod., Inc., 415 F.3d 1278, 1285 (Fed.

Cir. 2005) (“A claim construction that excludes a preferred embodiment . . . ‘is rarely, if ever, correct.’” (quoting Vitronics, 90 F.3d at 1582)). IV points to the following language in the specification to demonstrate the “error correction” must include retry protocol: “Although the error detection code actually does provide information for single bit error correction, this is not used for Channel data. Instead, the data transfer is retried using the transport retry protocol.” ‘442 patent, col. 16, ll. 53-56. IV does not explain whether “Channel data” is equivalent to the data sent across channels in packets. Even if it refers to packet data, this language regarding an “error detection code” does not undercut the claim construction urged by Defendants.

Defendants’ construction does not exclude a retry protocol. During the Markman hearing, counsel for Defendants pointed out that their construction would not foreclose a system that is capable of a retry request as long as that system is also capable of reconstructing erroneous data. See Markman Transcript at 57:18-24 (“And I want to be clear on our position, your Honor. We're not saying that you can't have a retry request. We're just saying that you have to at least have . . . technology that will perform error correction by reconstructing data. So under our construction . . . you could have both.”). In sum, the Court adopts the construction of “error correction” to

mean “correcting errors in data by at least reconstructing erroneous data.”

E. “error correction code” (claims 2, 25)

IV’s Proposed Construction	Def.’s Proposed Construction
a code that can be used to identify the presence of erroneous data in a packet	a code that can be used to correct erroneous data

Patent claims 2 and 25 refer to interfaces adding “error correction codes” to the packets exchanged over the channels and checking those codes. See ‘442 patent, claim 2, 25. The parties dispute whether ECCs are used in the claimed system only to detect the presence of errors in a data packet, or whether the codes can also be used by the various interfaces to actually correct errors in the data.

Judicial estoppel applies to IV’s argument concerning the proper construction of “error correction code.” The doctrine of judicial estoppel is intended to preserve the “integrity of judicial proceedings by protecting against litigants who play fast and loose with the courts.” U.S. Philips Corp. v. Sears Roebuck & Co., 55 F.3d 592, 596 (Fed. Cir. 1995)(internal quotation omitted). “Because the rule is intended to prevent improper use of judicial machinery, judicial estoppel is an equitable doctrine invoked by a court at its discretion.” New Hampshire v. Maine, 532 U.S. 742, 750 (2001) (internal quotations and citations omitted).

Whether a court should apply judicial estoppel in a patent case depends on the law of the regional circuit. Minn. Min. & Mfg. Co. v. Chemque, Inc., 303 F.3d 1294, 1302–03 (Fed. Cir. 2002). In the First Circuit, a party may be judicially estopped when (1) its current position is plainly inconsistent with its earlier position, such that the two positions are mutually exclusive, and (2) the party must have persuaded the first tribunal to accept its earlier position, such that judicial adoption of an inconsistent position in a later proceeding would create the perception that either the first or second court was misled. Sexual Minorities Uganda v. Lively, 899 F.3d 24, 32-33 (1st Cir. 2018). Additionally, a court should consider whether the party "seeking to assert an inconsistent position would derive an unfair advantage or impose an unfair detriment on the opposing party if not estopped." Id. at 33 (quoting New Hampshire, 532 U.S. at 751). The key factor is not whether a party relied on the prior position, but whether a tribunal did so in reaching its decision. See id.

In the HCC Litigation, defendant HCC proposed that an "error correction code" be construed as "a code that can be used to reconstruct data received with certain numbers of bit errors without requiring a retransmission of the data." HCC Litigation R&R at 9. IV argued in its opening claim construction brief that the code should not be limited to a specific number of bit

errors or without requiring retransmission. See HCC Litigation Opening Brief at 13. Rather, IV asserted that no construction was necessary and the plain and ordinary meaning should govern because "[a] person of ordinary skill in the art would know from the intrinsic record that the patentee used and applied the ordinary customary meaning of 'error correction code' – a code that can be used to correct erroneous data." Id. And, in the HCC litigation, IV cited to extrinsic evidence indicating that an "error correcting code" is a "code containing redundant information that can be used to detect certain classes of errors to restore a word, byte, character, quantity, or message to its correct representation." HCC Litigation Opening Brief at 13 (quoting IEEE Standard Dictionary of Electrical and Electronics Terms (6th ed. 1996)). IV further cited to another definition stating that this error correction "can be automatic." Id. Relying on these arguments and intrinsic evidence from the specification, the magistrate judge construed "error correction code" consistent with its plain and ordinary meaning to be a "code that can be used to correct erroneous data." HCC Litigation R&R at 10.

IV's current position is inconsistent with its position in the HCC Litigation. IV is estopped now from saying that error correction codes in the '442 patent should only be able to detect, and not correct, erroneous data when it successfully

advocated in Texas district court that the code plainly can be used to correct erroneous data. The magistrate judge adopted the portion of the proposed construction at issue here, and IV is judicially estopped from asserting otherwise in this litigation.

Even if IV was not judicially estopped, the proper construction of "error correction code" is "a code that can be used to correct erroneous data." First, the plain language of the claims specifically recite an "error correction code," not an "error detection code." See '442 patent, claims 2 and 25. While the specification refers to "error detection bits" or an "error detection code," the language in the claims are not limited to a code for detection. See id. at col. 16, ll. 50-55.

IV points out that throughout the '442 patent, interfaces appear to use error correction codes to detect errors in data and trigger a retry protocol. See id. at col. 16, ll. 51-56 ("The ecc[7:0] field provides error DETECTION coverage over the full packet . . ."); col. 19, ll. 3-5 (The CIB logic "must generate ECC, detect errors, and invoke a retry procedure for error recovery."); col. 19, ll. 55-56 ("ECC error detection will put the CIB logic in 'error retry' mode."). However, "[t]he claims, not specification embodiments, define the scope of patent protection. The patentee is entitled to the full scope of his claims, and [the Court] will not limit him to his preferred embodiment or import a limitation from the specification into

the claims." Kara Tech. Inc. v. Stamps.com Inc., 582 F.3d 1341, 1348 (Fed. Cir. 2009) (citing Phillips, 415 F.3d at 1323). Moreover, going back to the preferred embodiment in the specification, "[a]lthough [the] error detection code actually does provide information for single bit error correction, this is not used for Channel data." '442 patent at col. 16, ll. 52-54. Thus, the specification confirms that the code has the ability to correct data, not just detect errors. Therefore, "error correction code" is construed to mean "a code that can be used to correct erroneous data."

ORDER

For the reasons stated above, the Court construes the disputed terms as follows:

- "packet" is "a basic unit of transport over a channel";
- "error correction" is "correcting errors in data by at least reconstructing erroneous data"; and
- "error correction code" is "a code that can be used to correct erroneous data."

/s/ PATTI B. SARIS
Patti B. Saris
Chief United States District Judge